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10/528,392	11/14/2005	Theo Burchard	2732-166	7025
6449 7590 03/31/2009 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER CORDRAY, DENNIS R				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
03/31/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

# Office Action Summary

**Application No.**

10/528,392

**Applicant(s)**

BURCHARD ET AL.

**Examiner**

DENNIS CORDRAY

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/10/2009 has been entered.

***Response to Arguments***

2. Applicant's arguments and amendments have overcome the following rejections: Claims 1, 3, 5, 11, 12, 14, 15, 17 and 19 under 35 U.S.C. 112, first paragraph; Claims 1-13 and 20-23 under 35 U.S.C. 112, second paragraph. Claims 1-10, 13-16 and 20-22 under 35 U.S.C. 102(b) or under 35 U.S.C. 103(a) over Howland et al.

Claims 5, 11, 12, 17-19 and 23 under 35 U.S.C. 103(a) over Howland et al in view of others.

Howland et al and does not disclose a self-supporting film. Therefore, the indicated rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made as detailed below.

The indicated rejections have been withdrawn.

3. The remaining rejections based on Patzold et al are maintained but have been modified to address the amendments to the claims.

4. Applicant's arguments regarding the rejections over Patzold et al, alone and combined with others, have been fully considered but they are not persuasive.

Applicant argues that Patzold et al discloses a foil thickness such that the resulting product will exhibit a stiffness required for an information carrier. The disclosed range of foil thickness overlays the claimed ranges, thus reads on the claims. Applicant argues that the weight of the paper is greater than the claimed weight. Patzold et al uses a particular example that is a conventional photographic paper. However, incorporating the disclosed films and security features that render the document tamper proof into security paper of any weight would have been obvious to one of ordinary skill in the art absent convincing evidence of unobvious results. A hardenable adhesive typically refers to an adhesive that cures to form crosslinks and does not prevent use of papers comprising such adhesive as value documents. Any paper can be folded or creased.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 recite a "self-supporting plastic foil" but fail to recite what is intended by the term "self-supporting." The instant Specification does not define the term and no examples are presented using such a foil, thus it is not clear what is meant by a self-supporting plastic foil. Applicant argues that a self-supporting foil is inherent in a film that can be printed separately or that may be perforated before laminating it onto the paper. The plastic foil can be formed and then printed or perforated while being supported on a carrier foil or other support having a release layer and then applied to the paper substrate via the carrier foil or other support. The claimed plastic foil need not inherently be self-supporting to be printed or perforated.

Claims 1, 14, 24 and 25: A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not

required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claims 1 and 14 recite the broad recitation "1 to 20  $\mu\text{m}$ ", and the claims also recite "6 to 15  $\mu\text{m}$ ", which is the narrower statement of the range/limitation. Claims 24 and 25 recite the broad recitation "50-100  $\text{g/m}^2$ ", and the claims also recite "80-90  $\text{g/m}^2$ ", which is the narrower statement of the range/limitation.

The remaining listed claims ultimately depend from and carry the indefiniteness of either Claim 1 or Claim 14.

#### ***Claim Rejections - 35 USC § 102 and 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3, 5, 8-10 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Patzold et al (4455359).

Patzold et al discloses a tamper proof document comprising an information carrier, which can be a paper layer, laminated on both sides all over to a transparent plastic foil by means of an adhesive layer (Abs; col 1, lines 1-15 and 61-65; col 3, lines 31-45; col 4, lines 4-8; col 6, line 61 to col 7, line 2). The plastic foil has a thickness from 15 to 250  $\mu\text{m}$  (col 4, lines 61-63), which overlays the claimed ranges. The plastic foil is self-supporting because it is applied without the need for an additional carrier foil or support or, at least, a self-supporting foil would have been obvious to one of ordinary

skill in the art. The document has security features in the foil and/or in the paper layer, such as printed images, writing, embossing, watermarks (in the paper layer), magnetically or optically readable data, etc. (col 4, lines 15-35). Any paper can be folded or creased and the foils on opposing sides of the paper are under different strains when the paper is folded, creased or in any way deformed or, at least, different strains would have been obvious to one of ordinary skill in the art.

Patzold et al discloses that the document is intended to contain information relating to the owner and that such documents may be used for credit or cash free transactions, thus is a value document (col 1, lines 6-15). Alternatively, making a value document would at least have been obvious to one of ordinary skill in the art.

7. Claims 2, 4, 6, 7, 14-16 and 20-22 are rejected under 35 U.S.C. 103(a) as unpatentable over Patzold et al in view of Howland et al (5868902) and further in view of Tooth et al (4462866) and as evidenced by Haylock (Paper, Its making, merchenting and usage).

The disclosure of Patzold et al is used as above. Patzold et al also discloses a method step of applying a self-supporting plastic film to both surfaces of a paper all over (col 6, lines 30-32 and 61-68; col 7, lines 1 and 2).

Patzold et al does not disclose that the paper layer is interrupted, the use of intaglio printing, the kind of fibers used in the paper, that the paper is produced on a papermaking machine, that the foil is printed after application, or that the document is a bank note or check.

Claims 2, 6, 7, 14 and 21: Howland et al discloses a security paper comprising a plastic film applied to both surfaces and method of making the paper, the method comprising producing the paper in a paper machine from natural and/or synthetic fibers, drying the paper and then coating the paper on both surfaces with a coating containing polyurethane. The coating forms a film, or thin layer or foil, that provides chemical and mechanical protection for the paper (Abs; col 2, lines 17-24; col 4, lines 1-7; col 4, line 28 to col 5, line 5; cols 5-9, Examples).

Howland discloses that the paper layer comprises a security feature, such as a watermark and/or embedded or windowed security thread which incorporates visual or covert security elements (col 4, lines 16-19). The paper layer is interrupted where the embedded thread or window occurs.

In some embodiments, the coating comprises an iridescent, phosphorescent or fluorescent pigment or magnetic particles as security features (col 3, lines 32-61). In other embodiments, a foil, hologram or kinogram is affixed to the paper after it is made and coated (inherently on the film), either before or after printing (Claims 1, 16 and 17).

Howland does not disclose a self-supporting plastic foil.

Tooth et al discloses a security paper comprising a paper layer having a watermark and an embedded security thread visible in windows formed in the paper (Abs; col 3, lines 6-19). The security paper comprises a plastic film overlay covering the whole of one or more surfaces. The overlay can be a plastic film that is adhered to the



paper by an adhesive or an overlay applied as a liquid that subsequently forms a film adherent to the surface by evaporation of the solvent or polymerization and curing in situ (col 3, lines 28-56). Thus it is known in the art to apply preformed films or foils (obviously self-supporting) to a security paper or to form the films from a liquid applied to the paper as functionally equivalent options.

The art of Patzold et al, Howland et al, Tooth et al and the instant invention is analogous as pertaining to making security papers comprising a paper layer with a plastic foil layer on each side. It would have been obvious to one of ordinary skill in the art to make a paper layer on a papermaking machine from natural and/or synthetic fibers in the process and paper of Patzold et al in view of Howland et al and further in view of Tooth et al as a typical papermaking process. Cotton would have been obvious to one of ordinary skill in the art as a typical source of natural annual fibers (if evidence is needed, see Haylock, p 22). Providing a window interrupting the paper layer in which a security element is visible would have been obvious as a well known security feature of such papers.

Claims 4, 15 and 16: Howland et al discloses that the coated paper is printed via intaglio printing (col 4, lines 53-54; col 5, lines 6-9; col 5, lines 61-62, Example 1). Although not explicitly disclosed, printing images would have been obvious to one of ordinary skill in the art as a functionally equivalent option.

Claims 20 and 22: Howland et al discloses that the paper can be a banknote, identification document, driving license, passport, etc. (col 5, lines 10-12). Tooth et al discloses that the paper can be a banknote, cheque, identity card, credit card, etc.(col 3, lines 62-66). Making a banknote would have been obvious as a typical end product of security papers.

8. Claims 5, 11, 12 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzold et al in view of Hoeppner et al (US 2002/0022112).

The disclosure of Patzold et al is used as above. Patzold et al does not disclose extrusion or cold lamination of a film. Patzold et al also does not disclose that security features are in register with one another or form a combined information pattern.

Hoeppner et al discloses a multilayer security paper and process for making, the process comprising printing a paper on one or both sides, then extruding a plastic film layer to one or both sides of the paper. The extruded film comprises laser active pigments that permit subsequent personalization with a laser. The paper thus coated can be printed and/or embossed with various additional security features, and further marked, engraved or perforated using a laser (Abs; p 1, pars 14 and 16; p 3, pars 40-45). The coated and printed papers can be coated with an adhesive and further laminated with an upper and lower covering film, the surface of which can be embossed and/or printed with security colors (p 3, pars 46-49). Additional films can be laminated thereon (p 3, pars 50 and 51). Heat is not required, thus the films are cold-laminated.

The different layers have different properties, such as being doped, being sensitive to laser light, having integrated security features or materials, etc. (p 2, par 29).

Hoepfner et al discloses advantages of the extrusion and lamination processes that include accurate register of the various security features in the layers (p 1, par 13; p 2, pars 22-24; p 3, par 54). Some security features can be lasered into any desired layer. The security features in the layers thus form a combined information pattern.

Hoepfner et al discloses that the process can be used to produce value documents and other security papers. The carrier paper (paper layer) can comprise various security features, such as threads, holograms, etc. (p 1, par 4).

The art of Patzold et al, Hoepfner et al and the instant invention is analogous as pertaining to the manufacture of multilayered security papers. Absent convincing evidence of unexpected results, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply a plastic layer to the paper layer of Patzold et al in view of Hoepfner et al by extrusion or by cold lamination using an adhesive as well known and functionally equivalent options that provide accurately registered layers in which the security features are in register with, or complement, one another to form a combined information pattern. The motivation would have been to provide products consistent in appearance and easily identified but that are difficult to forge due to multiple security features. Since the laminated layers have different properties, they would obviously have different strain properties. Absent convincing evidence of

unexpected properties derived therefrom, a water-soluble adhesive would have been obvious as a functionally equivalent option.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patzold et al in view of Nigam (US 2003/0059636).

The disclosure of Patzold et al is used as above. Patzold et al does not disclose polyamide fibers.

Nigam discloses that synthetic fibers used to make printing papers include polyamide, polyesters, polyethylene and polyacrylic fibers (Abs; p 2, par 18).

The art of Patzold et al, Nigam and the instant invention is analogous as pertaining to the manufacture of printable papers. Absent convincing evidence of unexpected properties derived therefrom, it would have been obvious to one of ordinary skill in the art at the time of the invention use polyamide fibers in the paper layer of Patzold et al in view of Nigam as functionally equivalent synthetic fibers.

10. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzold et al in view of Howland et al and further in view of Tooth et al and even further in view of Murakami et al (5961432).

The disclosures of Patzold et al, Howland et al and Tooth et al are used as above. Patzold et al, Howland et al and Tooth et al do not disclose the claimed paper layer weight.

Murakami et al discloses security papers used for bank notes, checks, passports, identification cards, etc. The paper layer has a basis weight from 70 to 150 g/m<sup>2</sup> (Abs; col 5, lines 61-63; col 7, lines 41-45).

The art of Patzold et al, Howland et al, Tooth et al, Murakami et al and the instant invention is analogous as pertaining to security papers. Absent convincing evidence of unexpected properties derived therefrom, it would have been obvious to one of ordinary skill in the art to make a paper layer having the claimed weight in the process and product of Patzold et al in view of Howland et al and further in view of Tooth et al and even further in view of Murakami et al as a typical weight for security papers.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Cordray/  
Examiner, Art Unit 1791

/Eric Hug/  
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